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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/099,809	03/14/2002	Mikhail M. Lyapunov	14984.28	3092

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EXAMINER

RAHMJOO, MANUCHER

ART UNIT

PAPER NUMBER

2676

DATE MAILED: 07/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/099,809

Applicant(s)

LYAPUNOV ET AL.

Examiner

Mike Rahmjoo

Art Unit

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 June 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 10-18 and 20-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 10-18 and 20-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1- 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stamm et al (US Patent 6,356,278 provided by the applicant), hereinafter, Stamm in view of Taylor et al (US PUB 2002/0167523), hereinafter, Taylor.

As per claims 1, 11 and 12 Stamm teaches an act of generating a bit-map representation of a sub-component-oriented character by using a sample to generate each pixel sub-component see for example column 13 lines 1- 5 and figure 9 and by treating each pixel sub- component as a distinct luminance intensity source see for example column 13 line 9- 11;and an act of rendering the sub-component-oriented character on the display device by making one or more function calls to the hardware graphics unit using the application program interface see for example column 13 lines 30- 35 and figures 5 and 10, and one or more computer readable media see for

example figure 2 blocks 32- 34 and blocks 29, 31, and 39.

However, Stamm does not teach an act of processing the sub- component-oriented character to interface with the application program interface of the hardware graphics unit, wherein the application program interface is configured to treat each pixel as a single luminance intensity source, rather than treating each pixel sub- component as a single luminance intensity source.

Taylor teaches an act of processing the sub- component- oriented character to interface with the application program interface of the hardware graphics unit, wherein the application program interface (Direct X 6.0API) is configured to treat each pixel (API application to multiple textures for current or pervious **pixels of a polygon**) as a single luminance intensity source, rather than treating each pixel sub- component as a single luminance intensity source see for example page 7 paragraph[0126].

It would have been made obvious to one of ordinary skilled in the art at the time the invention was made to incorporate the teachings of Taylor into Stamm to perform texture mapping including selecting an appropriate level of detail (LOD), rotating, interfacing, and blending sub- components so as to perform arithmetic stretch blit with two source images that are composited together and alpha blended with a destination image over time and therefore provide a gradual fade from one image to a second composite image see for example page 2 paragraph [0025].

As per claims 2 and 13 Stamm teaches an act of blending the sub-component-oriented character on a background (combining three pixel sub-components to form a single pixel on an LCD) by making one or more function calls to

the hardware graphics unit see for example and column 9 lines 11- 24 and figure 4.

As per claims 3 and 14 Stamm teaches an act of blending the sub-component-oriented character on a non-solid background (different background color) image by making one or more function calls to the hardware graphics unit see for example column 13 lines 5- 20.

As per claims 4 and 15 Taylor teaches an act of blending the sub-component-oriented character on a background using a semi-transparent brush (alpha blending of the source pixel defined by RGBA) by making one or more function calls to the hardware graphics unit see for example page 7 paragraph [0143].

As per claims 5 and 16 Taylor teaches an act of rotating the sub-component-oriented character on a background by making one or more function calls to the hardware graphics unit see for example page 5 paragraph [0096].

As per claims 6 and 17 Stamm teaches an act of scaling the sub-component-oriented character on a background by making one or more function calls to the hardware graphics unit see for example column 9 lines 56- 64.

As per claims 7 and 18 Taylor teaches an act of rendering the sub-component-oriented character on the display device by making one or more function calls that are compatible with DirectX see for example page 7 paragraph [0126].

As per claims 10 and 20 Stamm teaches an act of defining a color channel for each pixel sub-component type see for example figure 4b blocks 72- 76 as different

channels of colors; and an act of separately populating a distinct color buffer for each color channel see for example column 12 lines 30- 33 for sampling and mapping at desired ratios.

As per claim 21 Stamm teaches an inter pixel interpolation of glyph data by means of graphics hardware see for example column 11 lines 18- 27.

As per claim 22 and in light of rejection of claims 1- 21 Stamm teaches a processing unit see for example in figure 2 blocks 21 and 49a, a display device see for example monitor 47; and scan conversion unit for over- scaled character representation see for example figure 5 block 90.

Response to Arguments

Applicant's arguments filed 06/11/2004 have been fully considered but they are not persuasive.

As per applicants arguments on page 12 that "in rejection of claims 9 and 19...now rewritten as independent claims 1 and 11". It is the understanding of the examiner that claim 8 should be included which is missing from the claims being rewritten as independent claim 1. Confirmation of such correction is respectfully requested.

As per applicants remarks filed 06/11/2004, applicant argues that "Taylor does not teach processing of characters that treat pixel sub- components as a distinct

luminance intensity source". Applicant also makes a remark as "Taylor's making use of the conventional application programming interface (Direct X), allowing for only one transparency value which corresponds to the transparency at a pixel as a whole and therefore having an apparent incompatibility with sub- component- oriented pixel processing".

The examiner respectfully disagrees.

The citation of claim 8 as to "the Application Program Interface is configured to treat each pixel as a single luminance intensity source, **rather than** treating each pixel sub-component as a single luminance intensity source" is of conflicting nature due to the argument which follows afterwards.

The examiner's analysis of the cited claim is "the Application Program Interface is configured to treat each pixel as a single luminance intensity source" with the negating second part of the claim which recites " **rather than** treating each pixel sub-component as a single luminance intensity source". Therefore, the examiner is rightfully rejecting applicant's claimed invention through the prior arts made of the reference.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

Art Unit: 2676

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mike Rahmjoo whose telephone number is (703) 305-5658. The examiner can normally be reached on 6:30- 3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella can be reached on (703) 308- 6829. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872- 9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4750.

Mike Rahmjoo



June 29, 2004

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600